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**Notice of Allowability**

Application No.

10/800,490

Applicant(s)

JOHNS ET AL.

Examiner

Daniel S. Larkin

Art Unit

2856

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to initial examination of application.
2. ☒ The allowed claim(s) is/are 31-50.
3. ☒ The drawings filed on 15 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date <u>3/15/04; 6/30/04</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|

**DANIEL S. LARKIN**  
**PRIMARY EXAMINER**

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

#### SPECIFICATION:

Page 1, page line 5: **Insert** the phrase -- now U.S. Patent No. 6,725,706, -- after the date "2002".

Page 9, page line 9: **Replace** the term "Nozzle" with the term -- nozzle --.

2. The following is an examiner's statement of reasons for allowance:

Prior art was not relied upon to reject claims 31-50 because the prior art fails to teach and/or make obvious the following:

Claims 31-44: Providing a device for use with reactor tubes in a chemical reactor, comprising: an automatic measuring device fixed relative to a probe for automatically measuring the distance to a fixed reference point within the chemical reactor; and means for automatically identifying the reactor tube in which the probe is inserted based on the distance measured by the automatic measuring device in combination with the remaining limitations of the claim.

Claim 45: Providing a device for use with reactor tubes in a chemical reactor, comprising an automatic measuring device fixed relative to a probe for automatically

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measuring the distance to a fixed reference point within the chemical reactor in combination with the remaining limitations of the claim.

Claims 46-50: Providing a method for working on reactor tubes in a chemical reactor, comprising the steps of: establishing a reference point inside the reactor; automatically measuring the distance between a point fixed relative to a probe and the reference point; and automatically identifying the reactor tube in which the probe is inserted based on the measured distance in combination with the remaining limitations of the claim.

The closest prior art, US 6,694,802 (Comardo) discloses a multi-tube differential pressure testing system for testing catalyst filled tubes, whereby a plurality of carts having a plurality of probes are positioned on an upper tube sheet of a catalytic reactor. The probes perform pressure tests on the tubes; however, the reference to Comardo fails to disclose any automatic measuring device fixed relative to the probe for automatically measuring the distance to a fixed reference point within the chemical reactor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art to US 3,916,960 (Thompson) discloses a catalyst unloader apparatus and method, comprising a manifold having a plurality of lances (33a-33c) for insertion into reactor tubes (T1-T3). A combination action of a high positive pressure and a high volume vacuum source work in conjunction to effectively remove a catalyst (C) in the reactor tubes by blasting or jetting action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Daniel Larkin  
AU 2856  
25 June 2005



**DANIEL S. LARKIN**  
**PRIMARY EXAMINER**